

## **MEMORANDUM**

SUBJECT: Request for Approval to Conduct a Time-Critical Removal Action at the Wilcox Oil Site, Bristow, Creek County, Oklahoma

FROM: Mark A. Hayes, On-Scene Coordinator (6SF-PR)  
Prevention & Response Branch

TO: Carl E. Edlund, P.E., Director  
Superfund Division (6SF)

THRU: Ronnie Crossland, Associate Director  
Prevention & Response Branch (6SF-P)

### **I. PURPOSE**

The purpose of this memorandum is to document the decision to initiate a time-critical removal action described herein for the Wilcox Oil Site located in Bristow, Creek County, Oklahoma pursuant to Section 104 of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 42 U.S.C. § 9604. The proposed scope of this action includes securing areas within the Site through installation of a fence, signage, and a cap with key access for an abandoned drinking water well.

This action continues to meet the criteria for initiating a removal action under the National Contingency Plan (NCP), 40 CFR § 300.415. This action is expected to require less than \$6 million to complete.

### **II. SITE CONDITIONS AND BACKGROUND**

CERCLIS #: **OK0001011917**  
Category : **Time Critical Removal**  
Site ID #: **06GG**  
National Significance: **NPL Site**

## A. Site Description

### 1. Removal Site evaluation

The results of an Oklahoma Department of Environmental Quality (ODEQ) Expanded Site Inspection (ESI) in June 2011 indicated high concentrations of Lead and Polycyclic Aromatic Hydrocarbons (PAH) in oily sludge waste at numerous locations on-site. Ground water sampling results from the ESI indicated elevated concentrations of Benzene, Toluene, Ethyl benzene, and Xylenes (BTEX) compounds at several district locations on-site. In addition, oily sludge leaching from the ground was observed during a site assessment conducted by the EPA OSC on March 20, 2014.

### 2. Physical location

The Wilcox Refinery Site is located northeast of the City of Bristow, Creek County, Oklahoma at West 221<sup>st</sup> Street South/Refinery Road, 0.35 mile east of U.S. Highway, 66 35°50'26.8966" north latitude and 96°22'48.693" west longitude.

### 3. Site characteristics

The site covers approximately 125 acres, and the former refinery area is partially fenced and covers approximately 18 acres. Most of the refinery structures and tanks no longer exist. A building in the northern part of the former refinery has been converted to a residence. An intermittent creek flows southward across the eastern portion of the refinery area through a small pond in the southeast corner of the refinery area into Sand Creek.

Refining operations began at the site during the 1920s and ended in the 1960s, when the site was abandoned and most steel structures were salvaged and removed. The property was utilized by two different refineries with overlapping boundaries from 1915 to 1965. Wilcox operated as a crude oil refinery from the 1920s until 1963. A skimming and cracking plant was constructed in 1929. The main components of the plant consisted of a skimming plant, cracking unit and re-distillation battery with vapor recovery system and treatment equipment. Wilcox expanded when it acquired the Lorraine Refinery in 1937, which was located adjacent to Wilcox. The two refineries comprise 125 acres. The site includes remnants of former oil refining operations and tank farms. Currently, a church and several residents are located within the former refinery boundaries, half of which utilize ground water from private wells. Homes are located in areas of former waste operations.

4. Releases or threatened release into the environment of a hazardous substance, pollutant or contaminant

Oily sludge leaching from the ground was observed during a site assessment conducted by the EPA OSC on March 20, 2014. Elevated concentrations of BTEX, PAHs and metals related to the disposal and abandonment of the refinery were detected during the ESI on June 2011. These hazardous substances as defined by section 101(14) of CERCLA, 42 U.S.C. §9601(14), are known to be present at the site.

5. NPL status

Wilcox Refinery is ranked and identified as a site on the National Priorities List (NPL). It was listed on the NPL on December 12, 2013.

6. Maps, Pictures, other graphic representations, and attachments



Figure A – Abandoned Drinking Water Well



Figure B – Oily Waste Material

## Attachment 1 – Source Map

### B. Other Actions to Date

#### 1. Previous Actions

ODEQ was tasked by EPA to complete a Site inspection in March 2009. ODEQ completed a Preliminary Assessment (PA) of the Site in August 2009. ODEQ completed an ESI in June 2011. The assessment activities conducted at the site consisted mostly of surface soil and sediment sampling. The Site was listed on the NPL December 12, 2013. No other response activities have been conducted.

#### 2. Current actions

This removal action will secure the Site by installing Site fencing, restricting access by children and other unauthorized persons to areas of contamination on-site. Additionally, installing a cap with key access on an abandoned drinking water well will restrict public access.

Enforcement is currently identifying and pursuing any viable PRPs. Where the potentially responsible parties are known, an effort initially shall be made, to the extent practicable, to determine whether they can and will perform the necessary removal action promptly and properly.

### C. State and Local Authorities' Roles

#### 1. State and Local actions to date

ODEQ has periodically conducted most of the site assessments and investigations at the site between 2009 and 2012.

## 2. Potential for continued State/local response

The ODEQ has requested the assistance of EPA in securing the Site through installing and replacing Site fencing and posting warning signs and securing an abandoned drinking water well. ODEQ does not have the ability to perform these response actions at present, however, ODEQ has expressed interest in assisting with future potential remedial actions.

### **III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES**

#### **A. Threats to Public Health or Welfare**

##### **1. Exposure to Human Populations, Animals or the Food Chain, NCP Section 300.415 (b)(2)(i)**

A community meeting was held by ODEQ and EPA on January 30, 2014 where residents expressed concerns about public access to oily sludge areas. Also during the meeting the First Assembly of God Church Pastor informed ODEQ and EPA of his concerns pertaining to an abandoned drinking water well potentially contaminated with the aforementioned hazardous substances. The results of an ESI in June 2011 indicated high concentrations of Lead and Polycyclic Aromatic Hydrocarbons (PAH) in oily sludge waste at numerous locations on-site. Ground water sampling results from the ESI indicated elevated concentrations of Benzene, Toluene, Ethyl benzene, and Xylenes (BTEX) compounds at several district locations on-site.

##### **2. Contaminants in Soils, NCP Section 300.415 (b)(2)(iv)**

The ESI in June 2011 confirmed the presence of significant concentrations of lead, BTEX and PAH compounds in subsurface soils.

##### **3. Availability of Other Mechanisms, NCP Section 300.415 (b)(2)(vii)**

Neither the State of Oklahoma nor the local government have the resources to secure the Site in the manner needed in advance of remedial action.

#### **B. Threats to the Environment**

Wildlife, as well as humans, can access the Site and be exposed to surface contaminants. Securing the Site by installing fencing with signage may help restrict access and minimize direct exposure to surface contaminants by wildlife as well as by human receptors.

### **IV. ENDANGERMENT DETERMINATION**

Actual or threatened releases of hazardous substances from this Site, if not addressed by

implementing the action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment.

## **V. PROPOSED ACTIONS AND ESTIMATED COSTS**

### **A. Proposed Actions**

In the interim of on-going enforcement and remedial planning activities, the recommendations to install fencing with signage around residential areas with visible oily sludge waste material on the surface is proposed. An abandoned drinking water well located near the First Assembly of God Church presents a concern of an active conduit for oily waste contamination. Capping with key access of the abandoned well is also proposed.

#### **1. Proposed action description**

Warning signs and approximately 800 feet of fencing will help deter the local residents from accessing the Site. Additionally, installing a cap with key access on the abandoned drinking water well will allow for securement and accessibility for potential sampling at a later date

#### **2. Contribution to remedial performance**

Securing the Site will contribute to remedial performance by preventing unauthorized access until enforcement and remedial is completed and remedial action field work begins on-site.

#### **3. Description of alternative technologies**

No alternative technologies exist to restrict access to the Site.

#### **4. Applicable or relevant and appropriate requirements**

There are no applicable or relevant and appropriate requirements for this action to install fencing and signage nor capping with key access of the abandoned well.

#### **5. Project schedule**

This action will be conducted as soon as possible after funding is allocated and is expected to take approximately less than one month.

## B. Estimated Costs

START staff, travel, equipment	\$20,000.00
ERRS	\$50,000.00
Total Extramural Costs	\$70,000.00
Contingency costs (20% of subtotal)	\$14,000.00
<b>Total Removal Project Ceiling</b>	<b>\$84,000.00</b>

## **VI. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN**

The public, including children and unauthorized adults, will continue to have access to the abandoned drinking water well and other areas with surface contamination.

## **VII. OUTSTANDING POLICY ISSUES**

There are no outstanding policy issues.

## **VIII. ENFORCEMENT**

The total cost for this removal action based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$124,167.

(Direct Cost) + (Other Direct) + 45.02% (Total Direct + Indirect Cost) = Estimated EPA Cost

$$\$84,000 + \$1,000 + (45.02\% \times (\$84,000 + \$3,000)) = \$124,167$$

Direct costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2002. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only, and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor the deviation of actual total costs from this estimate will affect the United States' right to cost recovery.

## IX. RECOMMENDATION

This decision document recommends the selected removal action under CERCLA for the Wilcox Oil Site, in Bristow, Creek County, Oklahoma developed in accordance with CERCLA, 42 U.S.C. § 9601 et. seq., and is not inconsistent with the NCP, 40 CFR § 300.

Conditions at the Site meet the criteria defined in Section 300.415 (b)(2) of the NCP, 40 CFR § 300.415(b)(2), for a removal, and I recommend your formal approval of the proposed removal action. The total CERCLA project ceiling for the proposed action, if approved, will be \$60,000.

APPROVED \_\_\_\_\_ DATE \_\_\_\_\_

Carl E. Edlund, P.E.  
Director, Superfund Division  
U.S. Environmental Protection Agency Region 6